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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/016,154

10/22/2001

Stuart D. Asakawa

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12/11/2003

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EXAMINER

MOUTTET, BLAISE L

ART UNIT

PAPER NUMBER

2853

DATE MAILED: 12/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/016,154

Applicant(s)

ASAKAWA, STUART D.

Examiner

Blaise L Mouttet

Art Unit

2853

MW

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-40 is/are pending in the application.
- 4a) Of the above claim(s) 22-40 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-16 and 18-20 is/are rejected.
- 7) ☒ Claim(s) 17 and 21 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 11.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### *Continued Examination Under 37 CFR 1.114*

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 14, 2003 has been entered.

### *Election/Restrictions*

2. Claims 22-40 withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to nonelected inventions, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 7.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 1, 4-7, 9-16 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ma et al. US 5,085,698 in view of Okuda et al. US 5,779,777.

Ma et al. discloses, regarding claim 1, a specialty ink comprising:

an ink vehicle (water, alcohol or a mixture thereof as discussed in column 8, line 51 – column 9, line 23); and

particulates (pigments) dispersed within the ink vehicle (column 7, line 10 – column 8, line 48) being ink jettable and configured for reliable ink jetting from an ink jet pen having a bore size in a range overlapping with 20-200 microns in diameter without clogging the ink jet pen (column 7, lines 15-17).

Regarding claims 4-6, 19 and 20 the various claimed ranges overlap with the ranges disclosed in column 7, lines 22-26 of Ma et al.

Regarding claim 9, a range overlapping 1-10% concentration by weight is taught for the particulates (column 9, lines 55-60)

Regarding claims 10-12, the pigment particles act as a colorant (column 7, lines 12-13).

Regarding claims 13 and 14, a thermal ink jet pen is used with the ink (column 9, lines 55-60).

Regarding claim 15, paper is taught as a substrate that accepts ink jet ink (column 1, lines 12-19).

Regarding claim 18, the ratio of the range of particle sizes (0.005-15 microns) to nozzle diameters (10-50 microns) overlap the range 1:8 – 1:300 specified.

Ma et al. fails to disclose, regarding claims 1, 13 and 16, that a multi-colored reflected light is emittable in the presence of a light source when the ink is dried and that the particulates have directionally dependent light reflective properties.

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Ma et al. fails to disclose, regarding claim 7, the range of 20-100 microns for the particulates length.

Okuda et al. discloses optimized ranges for pigment-based ink utilizing pearlescent directionally dependent light reflective and multicolor reflective particulates (column 2, lines 36-57) that overlap the ranges of claims 4-7, 9, 19 and 20.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to use the pigment pearlescent particulates as taught by Okuda et al. as the pigment particulates in the ink of Ma et al.

The motivation for doing so would have been that these particles allow for glossy printed images with quick drying as taught by the abstract of Okuda et al.

4. Claim 1, 3-16 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ma et al. US 5,085,698 in view of Bujard et al. US 5,855,660.

Ma et al. discloses, regarding claim 1, a specialty ink comprising:

an ink vehicle (water, alcohol or a mixture thereof as discussed in column 8, line 51 – column 9, line 23); and

particulates (pigments) dispersed within the ink vehicle (column 7, line 10 – column 8, line 48) being ink jettable and configured for reliable ink jetting from an ink jet pen having a bore size in a range overlapping with 20-200 microns in diameter without clogging the ink jet pen (column 7, lines 15-17).

Regarding claims 4-8, 19 and 20 the various claimed ranges overlap with the ranges disclosed in column 7, lines 22-26 of Ma et al.

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Regarding claim 9, a range overlapping 1-10% concentration by weight is taught for the particulates (column 9, lines 55-60)

Regarding claims 10-12, the pigment particles act as a colorant (column 7, lines 12-13).

Regarding claims 13 and 14, a thermal ink jet pen is used with the ink (column 9, lines 55-60).

Regarding claim 15, paper is taught as a substrate that accepts ink jet ink (column 1, lines 12-19).

Regarding claim 18, the ratio of the range of particle sizes (0.005-15 microns) to nozzle diameters (10-50 microns) overlap the range 1:8 –1:300 specified.

Ma et al. fails to disclose, regarding claims 1, 13 and 16, that a multi-colored reflected light is emittable in the presence of a light source when the ink is dried and that the particulates have directionally dependent light reflective properties.

Ma et al. fails to disclose, regarding claim 3, the particulates shape.

Bujard et al. discloses multi-colored pigment ink particulates having directionally dependent light reflective properties wherein the particulates are plate-like shaped and fall under the size ranges of claims 4-8 (column 6, lines 26-32).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to use the pigment mica plate-like particulates as taught by Bujard et al. as the pigment particulates in the ink of Ma et al.

The motivation for doing so would have been to print with desirable color effects as suggested by the title of Bujard et al.

***Allowable Subject Matter***

5. Claims 17 and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

The primary reason for the indication of the allowability of claim 17 is the inclusion therein, in combination as currently claimed, of the limitation of a second coating of the specialty ink-jet ink that increases the intensity of the directionally dependent light reflective properties. This limitation is found in claims 17 and is neither disclosed nor taught by the prior art of record, alone or in combination.

The primary reason for the indication of the allowability of claim 21 is the inclusion therein, in combination as currently claimed, of the further limitation of a standard ink-jet pen as well as the specialty ink jet pen. This limitation is found in claims 21 and is neither disclosed nor taught by the prior art of record, alone or in combination.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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***Response to Arguments***

5. Applicant's arguments filed October 14, 2003 have been fully considered and have necessitated the new rejection above.

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Blaise Mouttet whose telephone number is (703) 305-3007. The examiner can normally be reached on Monday-Friday from 8:30 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier, Art Unit 2853, can be reached at (703) 308-4896. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Blaise Mouttet December 3, 2003

Bm 12/3/2003

*Granita Stephens*  
*Primary Examiner*  
*12/08/03*